



**DEPARTMENT OF HOMELAND SECURITY**

**U.S. CUSTOMS AND BORDER PROTECTION**

**Notice of Issuance of Final Determination Concerning  
Certain Cordless Headsets**

**AGENCY:** U.S. Customs and Border Protection, Department of Homeland Security.

**ACTION:** Notice of final determination.

**SUMMARY:** This document provides notice that U.S. Customs and Border Protection (“CBP”) has issued a final determination concerning the country of origin of certain cordless headsets with included dongles. Based upon the facts presented, CBP has concluded that the non-TAA country where the headsets and dongles are assembled is the country where the last substantial transformation occurs. Therefore, for purposes of U.S. Government procurement, the country of origin of the headsets with included dongles is the non-TAA country where they were assembled.

**DATE:** The final determination was issued on February 3, 2014. A copy of the final determination is attached. Any party-at-interest, as defined in 19 C.F.R. § 177.22(d), may seek judicial review of this final determination on or before [insert 30 days from date of publication in the Federal Register].

**FOR FURTHER INFORMATION CONTACT:** Heather K. Pinnock, Valuation and Special Programs Branch: (202) 325-0034.

**SUPPLEMENTARY INFORMATION:** Notice is hereby given that on February 3, 2014, pursuant to subpart B of Part 177, U.S. Customs and Border Protection Regulations (19 C.F.R. Part 177, subpart B), CBP issued a final determination concerning the country of

origin of cordless headsets with included dongles that may be offered to the U.S. Government under an undesignated government procurement contract. This final determination, HQ H248027, was issued under procedures set forth at 19 C.F.R. Part 177, subpart B, which implements Title III of the Trade Agreements Act of 1979, as amended (19 U.S.C. § 2511-18). In the final determination, CBP concludes that, based upon the facts presented, the last substantial transformation takes place in the non-TAA country where the headsets and dongles are assembled. Therefore, for purposes of U.S. Government procurement, the country of origin of the headsets with included dongles is the non-TAA country where they were assembled.

Section 177.29, CBP Regulations (19 C.F.R. § 177.29), provides that a notice of final determination shall be published in the *Federal Register* within 60 days of the date the final determination is issued. Section 177.30, CBP Regulations (19 C.F.R. § 177.30), provides that any party-at-interest, as defined in 19 C.F.R. § 177.22(d), may seek judicial review of a final determination within 30 days of publication of such determination in the *Federal Register*.

**DATED:** February 5, 2014

Sandra L. Bell  
Executive Director  
Regulations and Rulings  
Office of International Trade

Attachment

HQ H248027

February 3, 2014

VAL OT:RR:CTF:VS H248027 HkP

**CATEGORY: Origin**

**Mr. Steve Bonar  
Sr. Global Customs Compliance Manager  
Plantronics, Inc.  
345 Encinal Street  
Santa Cruz, CA 95060**

**RE: Trade Agreements Act; Substantial Transformation; Country of Origin of Cordless Headsets**

**Dear Mr. Bonar:**

**This is in response to your letter dated August 21, 2013, requesting a final determination on behalf of Plantronics, Inc. ("Plantronics") pursuant to subpart B of part 177 of the U.S. Customs and Border Protection (CBP) Regulations (19 C.F.R. Part 177). Under these regulations, which implement Title III of the Trade Agreements Act of 1979 (TAA), as amended (19 U.S.C. § 2511 et seq.), CBP issues country of origin advisory rulings and final determinations as to whether an article is or would be a product of a designated country or instrumentality for the purposes of granting waivers of certain "Buy American" restrictions in U.S. law or practice for products offered for sale to the U.S. Government.**

**This final determination concerns the country of origin of Plantronics Voyager Legend™ UC cordless headsets. We note that as both the foreign manufacturer and the U.S. importer, Plantronics is a party-at-interest within the meaning of 19 C.F.R. § 177.22(d)(1) and is entitled to request this final determination. Your request for confidential treatment regarding manufacturing locations contained in your request is granted and the information contained in square brackets will not be disclosed to the public.**

**FACTS:**

**Plantronics imports fully functional Plantronics Voyager Legend™ UC cordless headsets from [TAA country]. According to the information submitted, the cordless headsets are lightweight devices worn over the ear that allow the user to control and communicate with mobile phones and computers. The headsets utilize Bluetooth technology, which allows for the exchange of data over short distances from fixed and mobile devices using radio frequency reception and transmission technologies. The headsets are packaged and sold with a Bluetooth Universal Serial Bus ("USB") dongle/adaptor (a hardware key for electronic copy and content protection that unlocks software functionality or decodes content) that, when plugged into a computer, allows the headset to control Voice over Internet Protocol ("VoIP") communication by acting as a pass-through for data.**

**The headsets and dongles are manufactured in the countries listed below as follows:**

[TAA country]

Individual chips containing all the components of an electronic system, known as a “System on a Chip” (“SoC”), are manufactured and loaded with Bluetooth protocol stack firmware and 16 megabits of programmable memory. A Bluetooth protocol stack is a series of instructions that allow Bluetooth devices to communicate with each other.

[Non-TAA country]

A printed circuit board containing transistors, diodes, capacitors, the Bluetooth-loaded SoC with flash memory, and an antenna is manufactured and assembled with plastic housing, buttons, speakers, microphones, sensors and batteries using solder and glue into a complete headset. The components are from [non-TAA country and TAA countries].

An antenna and an integrated circuit from [TAA country] also loaded with Bluetooth protocol stack firmware are assembled with the plastic housing to create a dongle.

[TAA country]

The fully assembled headsets and dongles are shipped to [TAA country]. In their imported condition, the headsets are capable of sending and receiving data but cannot utilize the data to perform tasks such as the regeneration of sound (voices).

Firmware is downloaded onto the SoC in the headset. Embedded in the firmware are “software hooks”, the sole purpose of which is to link the headsets with non-headset devices that have corresponding software (discussed below).

After the firmware is downloaded, the interior circuitry and the exterior of the headset are coated with a water resistant nano coating, the radio frequency reception and transmission of the headset are tested, and the headsets are packaged for retail sale.

Firmware is a class of code that controls the user interface (such as buttons and voice prompts that allow a user to change languages, answer or end a call), as well as the entire data flow into and out of the headset. In addition, firmware manages the integration of the headset with a paired device, such as a computer with a VoIP softphone, by calling the software loaded onto the paired device using digital hooks embedded in the firmware code. For example, some Voyager Bluetooth headsets have Vocalyst software hooks embedded in their firmware and will only interact with a corresponding Vocalyst application on a computer, while other Bluetooth headsets that do not have Vocalyst software hooks would not be able to connect. Firmware features digital signal processing (DSP), which regenerates data into audio and transforms audio into data. In addition, firmware is responsible for: Smart Call Transfer which, during an active call, transfers audio to the appropriate device (phone or headset); disabling the call control button to eliminate pocket dialing; automatically pausing streaming audio; automatically disconnecting a call; battery meter display on smartphones; voice recognition/commands; and, Caller ID. You state that without the firmware downloaded in [TAA country], the headset could not

function as designed, and would only be able to be turned on and send and receive a signal but could not interface with other devices.

Since 2008, all Bluetooth and other Voyager firmware has been designed and coded in [TAA country] by Plantronics. Firmware design involves the definition of application architecture, sequencing, and the programming language, while coding involves writing code according to specification and placing it in the predefined sequence.

Software allows the headset to integrate with multiple VoIP applications, and supports activities such as firmware updates, headset diagnostics, and the sending of emails and the reading of text messages. The software is designed in the United States, outsourced to multiple non-TAA countries to be coded according to U.S. specifications, and sequenced in the U.S. However, the software is not installed onto the headset or dongle but onto the paired non-headset device, such as a computer or mobile phone, which is not at issue in this ruling. Accordingly, the software will not be further discussed.

This ruling is issued on the assumption that the information provided to this office is correct.

#### ISSUE:

What is the country of origin of Plantronics Voyager Legend UC headsets for purposes of U.S. Government procurement?

#### LAW AND ANALYSIS:

Pursuant to Subpart B of Part 177, 19 CFR § 177.21 et seq., which implements Title III of the Trade Agreements Act of 1979, as amended (19 U.S.C. § 2511 et seq.), CBP issues country of origin advisory rulings and final determinations as to whether an article is or would be a product of a designated country or instrumentality for the purposes of granting waivers of certain "Buy American" restrictions in U.S. law or practice for products offered for sale to the U.S. Government.

Under the rule of origin set forth under 19 U.S.C. § 2518(4)(B):

An article is a product of a country or instrumentality only if (i) it is wholly the growth, product, or manufacture of that country or instrumentality, or (ii) in the case of an article which consists in whole or in part of materials from another country or instrumentality, it has been substantially transformed into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was so transformed.

See also 19 C.F.R. § 177.22(a).

In rendering advisory rulings and final determinations for purposes of U.S. Government procurement, CBP applies the provisions of subpart B of Part 177 consistent with the Federal Procurement Regulations. See 19 C.F.R. § 177.21. In this regard, CBP recognizes that the Federal Procurement Regulations restrict the U.S. Government's purchase of products to U.S.-made or designated country end products for acquisitions

subject to the TAA. See 48 C.F.R. § 25.403(c)(1). The Federal Procurement Regulations define “U.S.-made end product” as:

[A]n article that is mined, produced, or manufactured in the United States or that is substantially transformed in the United States into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed.

In Data General v. United States, 4 Ct. Int’l Trade 182 (1982), the court determined that for purposes of determining eligibility under item 807.00, Tariff Schedules of the United States (predecessor to subheading 9802.00.80, Harmonized Tariff Schedule of the United States), the programming of a foreign PROM (Programmable Read-Only Memory chip) in the United States substantially transformed the PROM into a U.S. article. The PROMs had no capacity to store and retrieve information until they were programmed in the U.S. by U.S. engineers who interconnected the discrete components in a defined logical pattern. The programming bestowed upon each circuit its electronic function, that is, its “memory” which could be retrieved. A distinct physical change was effected in the PROM by the opening or closing of the fuses, depending on the method of programming. This physical alteration, not visible to the naked eye, could be discerned by electronic testing of the PROM. The court noted that the programs were designed by a U.S. project engineer with many years of experience in “designing and building hardware.” While replicating the program pattern from a “master” PROM may be a quick one-step process, the development of the pattern and the production of the “master” PROM required much time and expertise. The court noted that it was undisputed that programming altered the character of a PROM. The essence of the article, its interconnections or stored memory, was established by programming. The court concluded that altering the non-functioning circuitry comprising a PROM through technological expertise in order to produce a functioning read only memory device, possessing a desired distinctive circuit pattern, was no less a “substantial transformation” than the manual interconnection of transistors, resistors and diodes upon a circuit board creating a similar pattern.

In Texas Instruments v. United States, 681 F.2d 778, 782 (CCPA 1982), the court observed that the substantial transformation issue is a “mixed question of technology and customs law.”

In C.S.D. 84-86, CBP stated:

We are of the opinion that the rationale of the court in the *Data General* case may be applied in the present case to support the principle that the essence of an integrated circuit memory storage device is established by programming . . . [W]e are of the opinion that the programming (or reprogramming) of an EPROM results in a new and different article of commerce which would be considered to be a product of the country where the programming or reprogramming takes place.

Accordingly, the programming of a device that changes or defines its use generally constitutes substantial transformation. See also Headquarters Ruling Letter (‘HQ’) 558868, dated February 23, 1995 (programming of SecureID Card substantially transforms the card because it gives the card its character and use as part of a security system and the programming is a permanent change that cannot be undone); HQ 735027,

dated September 7, 1993 (programming blank media (EEPROM) with instructions that allow it to perform certain functions that prevent piracy of software constitute substantial transformation); and, HQ 733085, dated July 13, 1990; but see HQ 732870, dated March 19, 1990 (formatting a blank diskette does not constitute substantial transformation because it does not add value, does not involve complex or highly technical operations and did not create a new or different product); HQ 734518, dated June 28, 1993, (motherboards are not substantially transformed by the implanting of the central processing unit on the board because, whereas in Data General use was being assigned to the PROM, the use of the motherboard had already been determined when the importer imports it).

You argue that the country of origin is [TAA country] because you believe that it is the country where the final substantial transformation takes place. You state that without the firmware with embedded software hooks loaded onto the fully assembled headsets in [TAA country], the headsets can only receive signals but cannot answer or end calls, operate by voice recognition, be turned on and off based on their positioning, direct signals to paired devices, or otherwise interact with a VoIP softphone or other Bluetooth devices. Accordingly, you believe that the firmware makes the headsets into new and different articles. In support of your position you cite Data General supra and HQ H170315, dated July 28, 2011.

HQ H170315 concerned the country of origin of satellite telephones. CBP was asked to consider six scenarios involving the manufacture of PCBs in one country and the programming of the PCBs with second country software either in the first country or in a third country where the phones were assembled. In the relevant scenarios (I and II), CBP found that when the PCBs were manufactured and programmed with second country software in one country and then incorporated into the phones in a third country, that the country of origin was the country in which the PCBs, which were the essence of the phones, were manufactured and programmed because the assembly operations in the third country were not sufficiently complex or meaningful to transform the PCBs into new and different articles. The third country operations consisted of assembling the imported, programmed PCBs with covers, a housing, antennas and cables by means of inserting, stacking, screwing and fitting together with clips.

In this case, the headset is fully assembled in [non-TAA country] from [non-TAA country and TAA country] components. The dongle is also made in [non-TAA country]. The headset and the dongle, both loaded with [TAA country]-origin Bluetooth firmware, are shipped to [TAA country]. Although in its imported condition the headset can send and receive signals, it cannot interface with other devices. The dongle is fully functional when imported and is able to transmit and receive data signals. In [TAA country], [TAA country]-origin firmware with embedded [TAA country]-origin software hooks is downloaded onto the headset, enabling it to communicate with corresponding software in a paired device such as a computer via the dongle. The firmware loaded in [TAA country] also enables the headset to process digital signals by filtering, measuring and compressing analog radio signals, transfer audio between a paired phone and headset during an active call, and to operate using voice recognition/commands, among other functions.

In HQ 241177, dated December 3, 2013, switches were assembled to completion in Malaysia and then shipped to Singapore, where software developed in the United States at a significant cost and over many years was downloaded onto them. The U.S.-origin software enabled the imported switches to interact with other network switches through network switching and routing, and allowed for the management of functions such as network performance monitoring and security and access control; without this software, the imported devices could not function as Ethernet switches. CBP found that the software downloading performed in Singapore did not amount to programming because programming consisted of writing, testing and implementing code necessary to make a computer function in a certain way.

Likewise, in this case the software downloading performed in [TAA country] does not amount to programming because the [TAA country] operations do not involve writing, testing or implementing the code necessary to make the headsets function in a certain way. See Data General supra. See also "computer program", Encyclopædia Britannica (2013), (9/19/2013) <http://www.britannica.com/EBchecked/topic/130654/computer-program>, which explains, in part, that "a program is prepared by first formulating a task and then expressing it in an appropriate computer language, presumably one suited to the application."

While the programming occurs in [TAA country], the downloading occurs in [TAA country]. Given these facts, we find that the country where the last substantial transformation of the headsets occurs is [non-TAA country], that is, where the major assembly processes are performed. The country of origin for purposes of U.S. Government procurement is [non-TAA country]. Likewise, we find that the country of origin of the dongles is [non-TAA country], where they were assembled.

#### **HOLDING:**

Based on the facts provided, the last substantial transformation occurs in [non-TAA country]. As such, the headsets and dongles will be considered products of [non-TAA country] for purposes of U.S. Government procurement.

Notice of this final determination will be given in the Federal Register, as required by 19 C.F.R. § 177.29. Any party-at-interest other than the party which requested this final determination may request, pursuant to 19 C.F.R. § 177.31, that CBP reexamine the matter anew and issue a new final determination. Pursuant to 19 C.F.R. § 177.30, any party-at-



interest may, within 30 days of publication of the Federal Register Notice referenced above, seek judicial review of this final determination before the Court of International Trade.

Sincerely,

Sandra L. Bell, Executive Director  
Regulations and Rulings  
Office of International Trade

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